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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/087,033

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Claudson F. Bornstein

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03/22/2006

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EXAMINER

BOAKYE, ALEXANDER O

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/087,033	<b>Applicant(s)</b> BORNSTEIN ET AL.	
	<b>Examiner</b> ALEXANDER BOAKYE	<b>Art Unit</b> 2667	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-15, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by McCanne (US Patent # 6,785,704).

Regarding claim 20, McCanne teaches a method operative in a content delivery network having a set of content servers organized into regions, wherein the content servers provide delivery of content on behalf of participating content providers, and wherein a given content server may be reached over a set of routes including a first route (column 9, lines 61-67; column 10, lines 57-64), wherein at least one route of the ordered subset includes an intermediate content server (the claimed intermediate content server is inherent in the intermediate network 28 of Fig. 2), comprising: attempting to communicate data between a given one of the set of content servers and a given provider origin server over the first route (column 13, lines 38-44); and if the

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attempts to communicate data between the given content server and the given content provider origin server over the first rout fails, attempting to communicate data between the given content server and the given content provider origin server over one of the ordered subset of the set of routes (column 13, lines 46-47).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewin et al. (US Patent # 7,010,578) in view of Aklepi et al. (US Patent # 6,795,823).

Regarding claim 11, Lewin teaches a method operative in a content delivery network (column 3, lines 22-23) having a set of edge servers organized into regions (the claimed set of edge servers organized into regions correspond to edge server #1 and edge server #2 of Fig. 2), wherein the edge servers provide delivery of content on behalf of participating content providers, and wherein a given content provider origin server may be reached over a set of routes (column 6, lines 9-13) comprising: identifying one or more routes between the edge servers and the content provider original server (column 2, lines 4-7); in response to a request for a given file received at

a given edge server initiating a concurrent download of the given file over each of the routes (column 6, lines 24-27).

Lewin differs from the claimed invention in that Lewin does not disclose determining an optimal route between the edge server and the content provider server as a function of the concurrent downloads. However, Aklepi with the same field of endeavor discloses determining an optimal route between the edge server and the content provider server as a function of the concurrent downloads (column 9, lines 4-15 ). One of ordinary skill in the art would have been motivated to incorporate optimal route in the communication network in order to minimize delivery times. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate determining an optimal route such as the one taught by Aklepi into communication network of Lewin with the motivation being that it provides capability for the system to minimize delivery times, thus enhancing efficiency.

Regarding claims 12 and 17, Lewin teaches a server for use in a content delivery network (column 3, 22-23) comprising: code (HML code contains ARLs) executable in the server (200, Fig. 2) for initiating a performance metric test on a set of potential routes between the server and a given second server (column 4, lines 48-55; column 6, lines 62-67); code executable in the server for collecting and analyzing data generated as a result of the performance metric test (column 2, lines 64-67). Lewin differs from the claimed invention in that Lewin does not disclose determining an optimal path between the server and the given server. However, Aklepi with the same field of endeavor discloses determining an optimal path between the server and the given

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server (column 9, lines 4-15). One of ordinary skill in the art would have been motivated to incorporate determining an optimal path into the communication network in order to minimize delivery times. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate determining an optimal path such as the one taught by Aklepi into communication network of Lewin with the motivation being that it provides capability for the system to minimize delivery times, thus enhancing efficiency.

Regarding claim 13, Lewin teaches that the server is an edge server and the given server is the a content provider origin server (column 3, lines 17-18; see Fig. 3).

Regarding claim 14, Lewin teaches that the server is an edge server and the given server is a reverse proxy server (the claimed server is an edge server reads on edge server #1 and the given server reads on client's server 200 of Fig. 2).

Regarding claim 15, Leighton teaches that the performance metric test is a download of a file, wherein the file is an object being requested by the end user (column 4, lines 48-55).

Regarding claim 19, Lewin teaches code executable in the server for fetching a map defining the set of potential routes, wherein the map is generated on a per-content provider basis (column 5, lines 7-15; column 5, lines 48-49).

***Allowable Subject Matter***

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3. Claims 16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-10 are allowable.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 1-10, the prior art of record does not teach executing a race by initiating a concurrent download of the file over each of the direct route and the set of one or more alternate routes; and as the result of the race, determining an optimal route between the edge server and the content provider origin server.

### Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Central Fax number is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Electronic Business Center numbers 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner

AB

6/19/06

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
3/20/07